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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SMITH IP SERVICES, P.C. P.O. Box 997 Rockwall, TX 75087			EXAMINER DITRANI, ANGELA M	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/598,559	Applicant(s) FREYER, RUNE	
	Examiner Angela M. DiTrani	Art Unit 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/30/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 7, 9, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "substantially" in claims 7, 9, and 12 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The use of the term "substantially" in claim 7 and claim 12 renders the scope of the elongated channel indefinite. In claim 9, the term renders the scope of the placement of the plurality of elements along the length of the tubular element indefinite.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Bosma et al. (WO 03/008756).

With respect to independent claim 1, the reference teaches a device for expanding into a cavity (**26**) being at least partly defined by a casting material (**14**) disposed in the borehole (**1**) characterized by an annular element (**16, 18, 20, 22, 24**) disposed on a tubular element (**11**) in the borehole and comprising an expandable material capable of extending from a retracted state to an expanded state (**30, 31, 32, 33, 34**).

With respect to depending claims 2 and 3, the reference teaches the device wherein the cavity is at least partly defined by the borehole wall, and, the device wherein the cavity is at least partly defined by the tubular element (see p. 2, lines 29-31).

With respect to depending claims 4 and 5, the reference teaches wherein the cavity at least partly holds a fluid, and, further, wherein the annular element is adapted to extend from the retracted state to the expanded state as a reaction to exposure to a fluid in the cavity (see p. 2, lines 6-21).

With respect to depending claim 7, the reference teaches wherein the cavity comprises an elongated channel substantially defined by the casting material, the tubular element, and the borehole wall (see Figure 1).

With respect to independent claim 8, the reference discloses a method for providing a barrier in a cavity (**26**) in a borehole (**1**), said cavity being at least

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partly defined by a casting material (**14**) disposed in the borehole, characterized by the steps of: on a tubular element (**11**), disposing one or more annular elements (**16, 18, 20, 22, 24**) comprising an expandable material capable of extending from a retracted state to an expanded state (**30, 31, 32, 33, 34**); extending the tubular element into the borehole; providing a casting material into a first volume defined by a borehole wall and the outer surface of said tubular element; whereby the expandable material may extend into said cavity (p. 7, line 5 - p. 8, line 11).

With respect to depending claim 9, the reference teaches wherein the annular elements comprise a plurality of elements placed at substantially regular intervals along a length of the tubular element (see Figure 1- **16, 18, 20, 22, 24**).

With respect to depending claim 10, the reference teaches wherein the expandable element is adapted to extend from a retracted state to an expanded state as a reaction to exposure to a fluid in the cavity (see p. 2, lines 6-21).

With respect to depending claim 11, the reference teaches wherein the expandable material extends into the cavity after the casting material has hardened (p. 7, line 5 - p. 8, line 11).

With respect to depending claim 12, the reference teaches wherein the cavity comprises an elongated channel substantially defined by the casting material, the tubular element, and the borehole wall (see Figure 1).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bosma et al. as applied to claim 1 above, and further in view of Raines (US 6,102,119).

With respect to claim 6, Bosma et al. discloses the device as claimed in claim 1, wherein the borehole is drilled, subsequent to which the casing is installed by conventional cementing methods. The reference, however, fails to explicitly teach wherein the conventional cementing method comprises employing a casting material of concrete. Raines discloses a method for installing a tubular element in a wellbore, wherein, subsequent to drilling the wellbore, a filler material of cement or concrete is employed in a fluid state for the purpose of subsequently being placed so as to surround the tubular element and, thereafter, curing, to hold the tubular element in its position therein (col. 5, line 25 – col. 6, line 37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ concrete as a casting material within the cementing method of Bosma et al. in order yield the predictable result of stabilizing the tubular element therein.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. DiTrani whose telephone number is (571)272-2182. The examiner can normally be reached on M-F, 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Gay can be reached on (571)272-7029. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AD

04/23/08

/Zakiya W. Bates/

Primary Examiner, Art Unit 3676